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Methods of Fertilizing Mulberry Trees to Feed Mulberry Silkworms in Surkhandarya Climate

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Annotation: Today, the opportunities for further development of the Uzbek economy are very wide, and in our opinion, there is another untapped opportunity. It does not require a large investment, preparation or scientific solutions. This ancillary (additional) sector does not require special land, irrigation facilities and training. It is a mulberry tree that grows in drought-tolerant, high-salinity or sandy soils. It can be maintained around roads, ditches and ditches, near apartment buildings, and in unused state reserves. Mulberry has been harvested twice a year for thousands of years, and when its leaves are cut with a twig in the spring, it is possible to grow the leaves as a feed to re-feed the silkworm both in summer and autumn. In addition, silkworms can be used to grow cocoons from mulberry leaves, raisins, halva, juice, jam (vareng'e), musallas can be obtained from the fruit, and mulberry grass is also used as fuel. Our people have known for a thousand years that high-quality natural silk fabrics are grown through deep processing of silkworm cocoons. It is woven at home from fabrics such as satin and adras. Fertilizing mulberry trees is very important.

Keywords: cocoon, mulberry, leaf, fertilization, tree, climate, conditions, place.

Natural climate and peculiarities of the land The Republic of Uzbekistan creates favorable conditions for the expansion of mulberry plantations for silkworm breeding, the country has huge resources of cocoons for the processing industry, which is a high quality mulberry silk allows you to grow environmentally friendly export-oriented products of worm cocoons. On January 17, 2020, the President of the Republic of Uzbekistan adopted Resolution No. PD-4567 "On additional measures for the development of the silkworm feed base in the silkworm industry." Encouraging the use of water-saving irrigation technologies in agriculture and the effective implementation of agro-technical measures, increasing the feed base of the silkworm industry through the widespread introduction of innovative ideas, scientific developments and scientific achievements, export The increase in production volumes, as well as the ongoing reforms in the silk industry have been further deepened.

Based on this decision, mulberry trees are being planted in Surkhandarya region. If there is a fodder base, it will not be difficult to sew natural garments by growing cocoons and deep processing them, to make surgical threads from silk, to make accurate parachutes and many other things, to train specialists for the

industry. In addition, our people have a long history of national handicrafts. Most importantly, mulberry trees on one hectare of land capture 15 tons of dust a year and provide ecological balance. If the need for mulberry leaves is reduced and the cocoon production is reduced later, mulberry leaves can be inoculated into medicinal and nutritious mulberries such as shotut, balkh mulberry, hasp mulberry, chagir mulberry. In vacant lots, mulberry trees should be planted at least one bush. Mulberry should be the pride of a multi-ethnic Uzbekistan. In fact, we know from the past that this tree brought our nation out of famine and severe winters.

As mentioned above, there are many untapped opportunities in Uzbekistan. Among them is tobacco, which provides a continuous supply of raw materials for natural fiber textiles. The sector, which has many lucrative, secure jobs, also plays an important role in the development of home-based work, small business and family entrepreneurship. Our national wealth - captivity - can be the basis for creating hundreds of thousands of jobs. cocoon and its deep processing will allow not only industry, but also transport, construction, education and other sectors to operate in full mode.

Therefore, we observed the fertilization of mulberry trees in the Surkhandarya climate. For this purpose, we conducted scientific observation of 29,500 large seedlings on 16.9 hectares of the Karasuv plantation named after "Ruzi Muminov" of "Bandikhon gilambob" LLC located in Qizirik district of Surkhandarya region, 27,800 seedlings and a total of 57,300 seedlings. .

The company raised 10.5 boxes of mulberry silkworms in 2022. It is planned to grow 12 boxes of silkworms by 2023.

The climate of the area where the enterprise is located is sharply continental, with the highest temperature on hot summer days up to 50 degrees, the average temperature in January 2.8 degrees, and the average temperature in July 31.4 degrees.

The climate of the plantation area is changeable, with cold winters and hot summers. According to the Surkhandarya weather station, the temperature rises to 42C on hot summer days and drops to 26C in winter. The average annual temperature is +14 -15.5 C. Relative humidity decreases by 60-67%, depending on the air temperature in summer (by 40-45%). The average humidity is 300-320 mm. Humidity is high in the spring months (March-April-May), mainly in late autumn. remains, moisture is deficient. That is why mulberry leaves in mulberry plantations begin to wither. This requires frequent watering. The cold days of the year begin in October and end in late March. The average number of cold days a year is 200-210. However, the number of cold days has been increasing in the last 4-5 years. Humidity increases in spring as a result of continuous rainy days. The average temperature is 8-9C in March, 15-17C in April and 25-27C in May.

In general, the Karasuv plantation named after Rozi Muminov, owned by Bandikhon Gilambob LLC in Qizirik district, is suitable for growing mulberry silkworms in natural climatic conditions. In terms of its prospects, the farm is not only in the district but also in the region, and this plantation is the most advanced advanced plantation, which is the most suitable for feeding mulberry silkworms.

Organic fertilizers are applied in the fall or spring before plowing, and mineral fertilizers are applied during the growing season.

Table-1. We observed the amount and timing of fertilization of seedlings in the plantation and presented it in tabular form.

Age of mulberries in mulberry	Organic fertilizers, in tons		Mineral o'g'itlar sof vaznda kg hisobida		
	Manure	Manure Juice	Nitrogen	Phosphorus	Potassium
Up to 5 years	10	5	120	60	30

Organic fertilizers were applied in full 50% of phosphorus and potassium before driving between rows in the fall. The remaining mineral fertilizers are applied in three periods during the growth period of mulberry: 1/3 of nitrogen with the remaining 50% of phosphorus and potassium in February-March: 1/3 of nitrogen in the first half of April, when mulberry leaves spread : 3- 1/3 of the nitrogen was given in late May to the first half of June after the mulberry leafy branches had been cut by the worm.

After such fertilization, the mulberry leaves grew significantly, and when the leaves were fed to the mulberry silkworms, the worms began to wrap well.

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